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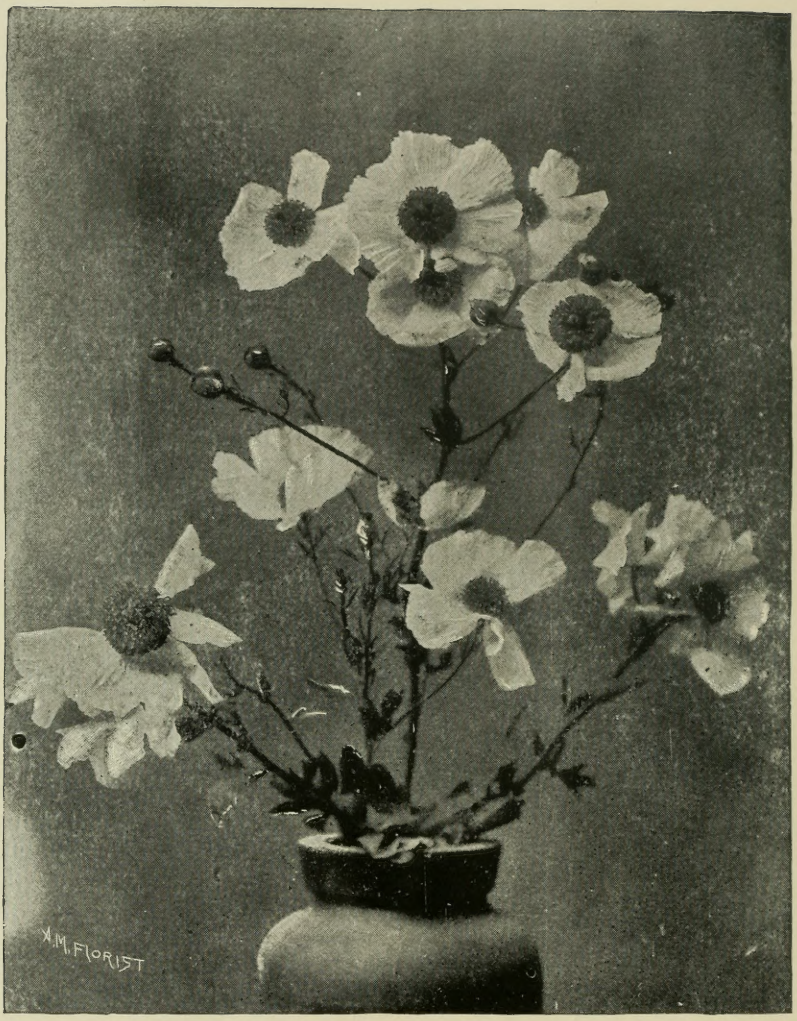

ROMNEYA COULTERI.

FLOWERS IN CALIFORNIA.

ROSES.

Could anyone desire roses more beautiful than those of California! Here they attain a perfection which may well excite the envy of less favored regions. They lend an idealistic beauty to our gardens and a soft radiance to our oftentimes embowered houses, that go far towards mitigating the everyday cares, furnishing a source of never-ending and ever-increasing enjoyment.

Roses easily adapt themselves to circumstances and will grow with but little care, but a healthy bush and an abundance of flowers is always the reward of generous treatment. They do best in a rich loamy or clayey soil, and can safely be planted any time from February 1st to the last of May, or in the fall. When planting cut the bushes back to sound eyes turning outward. Remove all weakly wood, spread the roots out naturally, and trim broken ends smooth. If the plant is from a pot and the ball still remains, loosen it slightly before setting in the ground. Firm the soil around the plant well, being careful to surface with dry, pulverized earth. Only water when the plant shows signs of needing it, and give no fertilizer until the first growth has hardened.

CHRYSANTHEMUMS.

For centuries past the Japanese have regarded the Chrysanthemum with a peculiarly intense national love. Gradually it has won its way in our own country, until to-day it is second only to the rose in popularity. During the last few years wonderful strides have been made in the production of new varieties, many

of them being so unique and varied in color and fantastic in form, as to baffle the skill of the artist in description.

Chrysanthemums come at a time of year when other flowers are the scarcest, even roses in the open ground having ceased to bloom. They have a flowering season extending over a period of several months, and the expanded flowers last a long time either on the bush or when cut. No garden is complete without its collection of these beautiful flowers.

Chrysanthemums, when grown in pots or open ground, should have rich soil and be kept growing continuously. A sunshiny, sheltered location is best. Plenty of water should be given, and as the flowering season approaches, regular applications of weak manure water should be made. If very large show flowers are desired, cut away all side shoots, leaving only one or two of the strongest stems and as many buds. The most satisfactory way is to pinch back the small plants to induce vigorous bushy growth; allow a number of strong shoots to remain, from which remove from one-half to two-thirds of the flower buds. The result will be an abundance of large-sized flowers.

CARNATIONS.

Carnations are universally planted and admired. They are so easily grown in all parts of California, embrace such a diversity of beautiful shades and colors, and have such a delightful fragrance, that no garden is complete without its bed or border of carnations.

Carnations will thrive in any good garden soil, the richer the better, but fertilizers should never be brought in direct contact with the plants. Long, straggly shoots or over-vigorous growths should be stopped by pinching until a strong, bushy, symmetrical plant is formed, when flower shoots may be allowed to grow; give plenty of water when growing vigorously and when flowering.

PELARGONIUMS.

Pelargoniums, or Lady Washington Geraniums as they are sometimes called, grow and blossom with remarkable luxuriance in California, particularly in the coast counties. They furnish at nearly all seasons of the year a profusion of flowers, whose unique

colorings it is most difficult to describe. Pelargoniums are among the most satisfactory flowers that can be planted, as they grow vigorously for years, and require but little care when once established. Plant in warm, sunny, well-drained locations, in good soil, pinch in over-vigorous shoots to keep the plant symmetrical. Give water sufficient for its growth and keep faded flowers cut off.

VIOLETS.

The sweet, modest Violet has won a warm place in the affections of the people of California. It is particularly popular on account of the ease with which it can be grown, the large size and abundance of the flowers produced and the long flowering season.

Violets delight in a partially shaded location and during the growing and blooming season should not lack for water. If large, fine flowers are desired, the plants must be given plenty of room and kept free from runners. All the varieties make pretty borders.

NATIVE CALIFORNIA SHRUBBERY.

The Toyon, or California Christmas berry (Heteromeles arbutifolia) is one of the handsomest evergreen shrubs on the Pacific Coast. The dark evergreen foliage, its clear cut habit and its sprays of white blossoms in its season render it attractive. But above all its other charms are the brilliant clusters of fruit at Christmas time, which were early recognized as a convenient substitute for Christmas holly. The shrub is well worthy of extensive cultivation aside from its fruit, which is edible, and when its qualities, useful and ornamental, are better appreciated it will be extensively planted.

The Giant California White Poppy (Romneya Coulteri) is one of the most stately plants belonging to our state, and lacked but few votes of being elected for our state flower, instead of the more brilliant Eschscholtzia. A portrait of this waxy white flower is given on first page. It is grown from seeds or cuttings, or roots may be transplanted. It is a half woody shrub, and the flowers, in cultivation, have actually been measured that were nine inches across. The shrub grows from two feet to fifteen feet in height in most favored localities.

PRIDE OF INDIA.

ORNAMENTAL FOREIGN SHRUBS.

Among foreign varieties of shrubbery that have proved well adapted to culture in Southern California, the following species seem worthy of special and more extended attention than they have yet received.

The Chinese Rice-paper Tree (Aralia papyrifera), a native of the shady swamps of Formosa, is always a handsome plant by reason of its magnificent ricinus-like foliage. The so-called rice-paper of China and Japan is made from the pith of the stem. The plant delights in a partially shaded and moist situation, and when in bloom is greatly admired by every one. As yet this species has only received attention in this country as an ornamental greenhouse plant; adapted to out-door culture in southern Florida and California, and it may ultimately be of economic value.

Magnolia exoniensis is a splendid flowering shrub from China, similar to the evergreen Magnolia of the southern United States. It bears magnificent, large, white flowers when but a foot high.

The Pride of India (Melia Azedarach), a native of southern Asia, and Australia, is an important avenue tree, valuable because of its ability to withstand sterility of soil and a dry climate. It produces an abundance of fragrant flowers, which may perhaps be worth distilling for its essential oil. Although deciduous, it retains its foliage late in the season. The tree is also known as the Pride of China, China berry tree, and, in this country is perhaps best known as the Texas Umbrella tree, since it was first grown in this country in Texas, and because of its broad spreading top—a characteristic well shown in the accompanying illustration.

Grevillea robusta, a beautiful tree for the lawn or sidewalk, is a native of Australia, of rapid growth, and attains a hight of one hundred and fifty feet. It resists drouth in a remarkable degree. The rich golden yellow trusses of flowers add not a little to its attractiveness—a feature fully appreciated by the busy bee and the more brilliant hummer. In the east it is greatly prized as a greenhouse pot plant because of its fern-like foliage and symmetrical and graceful habit of growth.

The flowering crab apple(Pyrus Parkmanni) makes a beautiful tree, and the flowers when open droop on slender stems in graceful clusters like the cherry. The buds are a deep carnation, the flowers semi-double. The rose crab is now generally catalogued

as Pyrus spectabilis. The illustration herewith imperfectly shows the beauty and grace of its sprays of bloom.

The Gold-dust tree (Aucuba Japonica) is a handsome greenhouse shrub, adapted to out door life with us, and is one of our very best foliage plants. It is a native of Japan and China, the green leaves flaked with golden yellow.

Swainsona alba is a dainty shrub, worthy of wide culture because of its beautiful foliage, its small and symmetrical growth,

and its spikes of pure white, pea-like flowers. It is destined inev itably to become a great favorite.

Breath of Heaven (Diosma alba—from dios, divine, and osme, odor) is a shrub admired by many for its heath-like foliage which yields a delightful but powerful perfume. When in bloom the plant is completely covered with star-like, white flowers, which are useful for cut flower work.

THE EGYPTIAN LOTUS.

The sacred lotus of India and China (Nelumbium speciosum) was cultivated in Egypt in most ancient times. The leaves of this wonderful tropical plant grown in cultivation, have measured thirty inches across, on stalks five and six feet long, and with flower stalks five to seven feet.

The first day the flowers appear like gigantic tea rose buds, of a bright rosy color. The second day they open like a tulip, the base of the petals being creamy white, most beautifully and delicately shading into bright pink at the tips. When fully expanded the flowers measure ten to thirteen inches from tip to tip of petals, and are delightfully fragrant.

Although a tropical plant, this has proved entirely hardy in this country, and gives pleasure to many a country home in America. When placed in a pond it spreads rapidly, being of a rambling nature. The cut, kindly loaned for our use by Mr. E. D. Sturtevant, who is well known for his love of rare water lilies, shows a fine plant confined in a tub.

NOVELTIES OF 1892.

Among the novelties in plants for 1892 are two striking forms of Arbutilons, raised in California this past year. The following brief description will be found of interest to the lovers of this beautiful genus.

GOLDEN PUFF. The flowers of this are very large and brilliant, of a rich chrome yellow, and a satiny lustre. The petals are contracted like a puff, hence the name. It grows tall, with large green foliage marked with black veining or stains, the stems also blackish. It is sure to be a welcome accession to every collection of Arbutilons.

THE WEEPING ARBUTILON. The flowers of this are spread like a partially opened umbrella, the petals crumpled and folded somewhat like a half-opened umbrella, in a very novel style. The flowers are large, of an orange chrome veined and marked with carmine in quite a peculiar manner. The weeping habit of the rather tall growing plant is another characteristic, which gives the variety its name. A charming sort, and a novelty which anyone might well be proud of introducing.

NOTES ON PLANTING.

BORDERS.

A perfect border is a great addition to a well-kept garden, it is, in fact, a necessity about the flower beds. 'How to make and keep a border in order,' is a frequent question. In the first place, we must remember that most border plants are annuals, and that their season of perfection is short, which in colder climates is ended by frosts. Not so in California; here they live throughout the year, and look shabby but do not die. Such border plants must be destroyed and a new crop of seedlings or slips re-set. This means time, labor, and money, but there is no other alternative if you would have a handsome border. There are a few exceptions, of course, and the more lasting borders are the more desirable ones.

The yellow feverfew or golden feather can be planted at any season, must never be allowed to bloom and requires some trimming or shearing. It needs to be replanted about every nine

months. The low-growing pink oxalis and the tall yellow sort are excellent winter blooming plants that increase very rapidly by bulblets, and must be dug and re-set in May or June when the plant dies down, otherwise it becomes fairly a pest all over the yard. The dwarf Mad. Saleroi geranium is one of the most lasting borders. It requires some trimming, and re-planting at least every eighteen months. Echeveria makes one of the easiest kept borders. It is the plant known as 'Old Hen and Chicks.' It can be grown to make any width of border, and if the rosettes are too thick, they are easily thinned out. The red and yellow altenantheras are choice border plants. They grow best in warm weather, and should be planted in May or June. In the winter the top is often nipped by the cold but the roots are uninjured. In April trim back the tops. Shearing is necessary to grow a good border. The name of the Florence hotel and the Hotel del Coronado is made of this plant. Lobelia is a pretty border plant, but requires trimming and frequent replanting to keep it in order. Blue Ageratum is good for a border, growing possibly a foot high. The variegated or silver thyme is much used about San Francisco—but is rarely seen here. The violets make an excellent border for all north and northeast beds. They should be divided and re-set in May, and are in bloom during winter and spring. The daisy also requires a shady location. The variegated dew plant is excellent if a wide border can be grown—one foot to eighteen inches. No department of gardening has been more neglected here than this one, but during the past year more interest has been shown, and in time all will be willing to work hard for the returns—good borders we can and must have.

THE ARAUCARIAN PINES.

Few plants can compare with the noble genus of araucarias for symmetry of growth and elegant proportions. All the species are among the choicest of conservatory plants in the United States and Europe, while here they are grown successfully in the open ground without winter protection.

The araucarias are of very slow growth, but when mature are very large trees. It is very rarely that this fact is considered when one is planting them. In consequence, we see these beauti-

ful trees at ten years, even, crowded in by shrubbery, fences or barn, and the pruner begins his work. The symmetry and regularity of growth is destroyed and the plant utterly ruined. The araucaria should never be pruned at any time—to do so is barbarous. It would be better to cut to the ground than to let it stand a helpless deformity. They are most effective on large lawns and are not suitable for a small grass plot crowded with everything that you admire and must have.

Nearly everyone is familiar with the 'Norfolk island pine' which is Araucaria excelsa. This variety is quite sensitive to frost and is therefore not seen growing so well in Northern California. It also requires more room to spread, needing fully fifty feet of ground for perfect growth. Araucaria Bidwellii is a very beautiful sort and is a strong contrast to Araucaria excelsa. It has a dark, dense foliage, formidable indeed if you dare approach, intended by nature to fight well against the mutilations of the pruner.

Araucaria Bidwellii will grow absolutely perfect if let alone, a fine example of such treatment being in the plant at the old Cowles place, El Cajon—twenty-five feet high—a veritable monument to its planters. It has not a scar, uot a limb gone. A tree of this species bore last year thirteen cones, each weighing from five to seven pounds, but none of the seed ripened.

Araucaria imbricata is the most striking and singular, the rarest and most expensive of all the species. It, as well as A. Bidwellii, is sometimes called the 'monkey tree,' as they are said to be the only trees a monkey cannot climb. This species branches symmetrically, but the leaves are like small scaly spines set close on the limb, making the tree appear as though it were without foliage. There is but one plant in San Diego (to my knowledge) large enough to show its characteristics. This plant,which is at the northeast corner of Fourth and Maple, now about two and one-half feet high, will in five years stand six to seven feet high, and at that hight could not be replaced for less than $50. The finest specimens in the state are at San Francisco and Oakland and should be examined by everyone interested in choice plants, as the beauty is developed with age, and no idea can be formed from a small plant. It will grow from fifty to one hundred feet high and is a native of Chile.

Araucaria Brasiliensis, from Brazil, is represented by two plants in San Diego. With age this variety drops its lower branches, leaving a bare trunk.

THE GARDEN'S STORY.

'The Garden's Story is a most charming little book by G. H. Ellwanger that I hope everyone interested in gardening will own. It is full of practical suggestions and the following are worth heeding:

Whatever is worth growing at all is worth growing well.

Study soil and exposure and cultivate no more space than can be maintained in perfect order.

Plant thickly; it is easier and more profitable to raise flowers than weeds.

Avoid stiffness and exact balancing; garden vases and garden flowers need not necessarily be used in pairs.

A flower is essentially feminine and demands attention as the price of its smiles.

Let there be harmony and beauty of color. Magenta in any form is a discord that should never jar.

In studying color effects do not overlook white as a foil; white is the lens of the garden's eye.

Think twice and then still think before placing a tree, shrub or plant in position. Think thrice before removing a specimen tree.

Grow an abundance of flowers for cutting; the bees and butterflies are not entitled to all the spoils.

Love a flower in advance and plant something every year.

Show me a well ordered garden and I will show you a genial home.

Miss K. O. Sessions.

CALIFORNIA PALMS.

No class of plants adds so much to the tropical beauty of California gardens as the stately but ever-graceful palms. They are among the noblest and most admired of trees, in every country in which they thrive. For grand avenues or landscape effects they are unexcelled. Plant them in good soil, and give plenty of water the first year until the roots become established. The ground should be occasionally loosened and pulverized.

All the palms indigenous to Upper California belong to the

genus Washingtonia. Just south of the Mexican border another genus, Erythea, occurs, a second species of which is found on the 'lone sweet isle amid the sea' named Guadalupe. This island is situated about two hundred miles from San Diego and one hundred miles from the mainland of Baja California.

Erythea armata, known to seedsmen as Brahea glauca, B. Roetzlii, and by some other names, is the beautiful blue palm, so greatly prized because of its lovely color, and its slow growth—which keeps it easily within the bounds of a conservatory.

Erythea edulis (better known as Brahea edulis) is of much more rapid growth, of a rather dark green, the leaves fan-shaped (as in all our species). This is a very graceful species, and several have reached a productive age at Santa Barbara and San Diego. The fruit is edible like that of our other palms.

Of Washingtonia two varieties are recognized by horticulturists and by some botanists—W. filifera and W. robusta. Portraits of the two forms are herewith presented, but characters supposed to distinguish the two are not constant. Typical plants of either can probably be grown from seed from the same tree.

WASHINGTONIA FILIFERA.

Among foreign varieties of palms that thrive in southern California, the following are a few of the best.

Chamærops excelsa. An upright, symmetrical, fan palm with deeply notched leaves. Hardy and one of the finest decorative lawn plants.

Seaforthia elegans. Broadly pinnated leaves of a rich green, one of the most graceful palms for the conservatory.

Phœnix canariensis. The best of the ornamental varieties

WASHINGTONIA ROBUSTA.

of date palm; graceful, long recurved, pinnate leaves, and hardy.

Cocos Australis. One of the hardiest of palms, and one of great beauty.

Cocos plumosa. Elegant, plume-like foliage.

Cycas revoluta. One of the best dwarf decorative plants, the 'sago palm,' though more nearly related to the pines than the palms.

Sabal palmetto. The Palmetto is one of the noblest of palms, attaining a height of forty feet.

Sabal adansoni. Dwarf palmetto, a stemless fan palm, and one of the hardiest.

Latania borbonica. Glossy, drooping, fan-shaped leaves, the most useful and beautiful of palms for house decoration or lawn.

SUGGESTIONS.

In Southern California below the frost belt—begonias, primulas, ferns of all kinds, and shade-loving plants thrive in a lath house partially shaded by vines. Most begonias are fine bedding plants in sheltered locations. Begonia rubra is a wonderful grower. It often reaches a hight of fifteen feet

Best vines for verandas: Begonias, Tecoma Jasminoides, Campsidium felicifolium, jasmines, and Thunbergia laurifolia.

Best vines for screens, summer houses and growing in trees: Passifloras, Cobæa, Mandevilla and Ipomœas.

Don't fail to try Mina lobata, as easily grown as a morning glory, and so beautiful every one 'raves over it.'

The new Ipomea, 'Heavenly Blue,' a child of Ipomœa Leari and Mina lobata, is indescribably beautiful.

The large flowering blue stock is extremely pretty.

Giant Perfection stock is superb, delights all.

The new seedling fuschia, Gen. Vandever, is worthy of all praise, flowers large and beautiful, a fine climber.

The perpetual blooming Cyclamen Mt. Blanc is greatly admired, too much cannot be said in its praise.

Cereus triangularis is a most interesting variety of this grotesque family. Grown without support it rambles over the ground, planted near a house it becomes ambitious. A large

specimen of this cactus is eight years old. The first four years it contented itself with clambering on the ground and about the lower part of the veranda. Four years ago it commenced to climb, and has now reached the roof of the second story of the house, thirty-five feet from the ground. It has sent out innumerable great triangular branches in every direction, attaching itself by long, white roots, which loosen as the branches become strong and hang like a gray fringe all over the plant. It reaches across the windows on the upper and lower verandas, twists itself under the ceiling for several yards, winds about the railing and has thrown one branch out ten or fifteen feet, which hangs pendulous in a white Lamarque rose near it. The flowers open at 5 p. m. and close at 10 a. m., they measure twelve inches across, are double, creamy white outside, petals yellow, the stems two inches in diameter. This cactus is said to be one of the curiosities of the United States, being the largest of its kind known.

Mrs. Theodosia B. Shepherd.

FLOWERS.

(Selected from Mrs. A. L. Barbauld, an English author who died in 1825, aged 82.)

With flowers the Graces bind their yellow hair,
And flowery wreathes consenting lovers wear.
Flowers, the sole luxury which Nature knew,
In Eden's pure and guiltless gardens grew.

To loftier forms are rougher tasks assigned;
The sheltering oak resists the stormy wind,
The tougher yew repels invading foes,
And the tall pine for future navies grows.

But this soft family, to cares unknown,
Were born for pleasure and delight alone;
Gay without toil, and lovely without art,
They spring to cheer the sense and glad the heart.

HORTICULTURAL SCHOLARSHIPS.

The plans of the late Henry Shaw for making his famous garden at St. Louis useful for botany in the broadest sense, comprise the establishment of several scholarships for young men fitting themselves for the vocation of practical gardeners. In accordance with these plans, his trustees have created six such scholarships, which pay the living expenses of the pupils holding them during the six years of the course, while they are lodged in a cottage adjoining the garden. Three of these scholarships are to be awarded in March next, and young men who wish to compete for them can obtain all necessary information by addressing the Director of the Botanical Gardens at St. Louis, Mo.

LITTLE KNOWN FRUITS.

The tree tomato (Solanum betaceum) is a highly ornamental shrub, a native of South American counties.

In Ceylon and India, where it is also cultivated, it is known as the 'poor man's fruit,' and is extensively grown for food. Its delicious fruit ripens out of doors in Southern California from Christmas time to the middle of February. As a greenhouse plant it is well worth attention in the east.

The mature fruit is of a saturn red, with a carmine blush and veining, egg-shaped, near the size of a hen's egg, with solid flesh. The fruit has a fine tomato-like flavor, will bear transportation well, and possesses good keeping qualities. It can be served as a dessert fruit, or may be cooked in a multitude of ways. Also useful for jelly making. It is becoming deservedly popular among its acquaintances, but as yet has been tried by only a few progressive growers.

CULTURE OF CALIFORNIA BULBS.

In California climate, where the thermometer never registers lower than 14° above zero, my treatment of these bulbs is substantially as follows:

CALOCHORTUS. Use boxes eight to twelve inches deep. In the bottom place clay loam three to four inches deep, packing well. On this a thin layer, an inch or so, of sand, in which plant the bulbs. Three inches each way is ample space. The covering

should be about three inches deep, of thoroughly mixed soil, if sifted, so much the better. Should be pressed down firmly. For C. venustus and its varieties, C. luteus, C. splendens, C. Kennedyi, C. maweanus, C. pulchellus, C. nudus, C. Benthamii use a clay loam with about one-tenth chip mold. They require a soil that will pack firmly. C. macrocarpus, C. Gunnisoni, C. Weedii, and C. Palmerii need a sandy loam. During the growing season give plenty of water, less after budding, ceasing entirely after blooming. They can be left in the ground.

BRODIÆAS. Thrive under the same treatment as Calochortus, but do better still in a rich, loose soil, of about one-third chip mold, one-third sand, and one-third clay loam.

ERYTHRONIUMS. Need a rich soil of mold and clay or sand. Thrifty in sunny locations, but flowers are much finer if grown in the shade.

CAMASSIAS. Loose sandy loam and abundance of water, otherwise as calochortus.

FRITILLARIAS. Half shade, loose, rich soil and good drainage. Loam and leaf mold are best.

LILIES. L. Humboldtii, L. Washingtonianum and L. rubescens, eight inches deep, in shade, with good drainage. Give L. Humboldtii clayey loam, L. rubescens gritty soil and leaf mold, L. Washingtonianum sandy loam and mold.

L. pardalinum, L. parvum, L. Parryi and L. maritimum are bog lilies. Their very best condition of growth is when they can be planted in rich sandy loam or muck, so that the bulb is in drained soil and the roots can run down a few inches to water, as on the banks of streams, around springs or on the hummocks in a swamp. For garden purposes a sandy loam, with a good admixture of leaf mold or bog is good. Plant five or six inches deep und give shade and abundant moisture.

Clintonia Andrewsiana, Scoliopus Bigelovii and Trillium ovatum are natural to cool, shaded woods, with rich, well-drained soil and abundant moisture. Trillium sessile is a bog plant. Shade, mold and abundant moisture are its requisites.

Chlorogalum needs gravelly soil and sunlight.

My most reliable information from the east, would indicate the following as best treatment:

Plant in fall as soon as bulbs can be had, in shallow boxes or pans (five or six inches deep). Use a fine soil of loam and sand, plant bulbs about two to three inches deep, and place in cold frame. Under such conditions fine results have been reached. Do not water too much.

Carl Purdy.

WHAT CHRYSANTHEMUMS TO PLANT.

Among the hosts of new and old sorts of flowers now known, it is often puzzling to know just what varieties are best to plant. The following brief descriptive list has been carefully prepared by two ladies of experience as the varieties best worthy of recommendation to Southern Californians.

FINE WHITE CHRYSANTHEMUMS.

Mrs. M. F. Moseman.

Silver Tassel.

Mrs. Langtry. Pure white, outside petals quilled, very large and beautiful flower.

Blanche Niege.

Robert Bottomly.

Diana.

Lady St. Claire.

Pelican. Pure white, large, long, broad, curled florets, long stems and very handsome.

Jessie Watson. Very beautiful, small, fine white.

Mountain of Snow. Pure white. large and beautiful, fine for exhibition.

Bride. White, incurved, drooping petals; one of the best.

Christmas Eve. Pure white, incurved, late flowering.

Marvel. White with a maroon spot in the center.

Mrs. Alpheus Hardy. Pure white, incurved, reverse of petals thickly set with teathery-like hairs, remarkable, and of great beauty.

M. Boucot. Most perfect pink white.

Lacinata. Very distinct, very fine fringed; petals white.

Edna Craig. Lovely white, large perfect flower, anemone center.

Mrs. Cleveland. Pure white, with long, tubular petals.

Lady St. Claire. Incurved, white.

Mrs. Irving Clark. Soft cream white, suffused with rose, and sometimes yellow. One of the largest, finest and best

Sunnyside. Resembles an immense pond lily; of a pearly white color, deepening in the center to delicate rose.

Marguerite. Pure white, like marguerites. Very valuable on account of its perpetual blooming qualities.

YELLOW CHRYSANTHEMUMS.

Kioto.

J. H. Connell. Very large, globular.

Phoebus. Rich, deep yellow.

Dr. Creveans.

M. Robinet. A very effective late sort.

S. Y. Murkland. Of very artistic habit.

Gold. Very latest, pure yellow, large, fine for cutting.

E. G. Hill. A fine, showy sort.

San Diego. Lemon yellow. Very hardy.

Temple of Solomon.

Grandiflorum. Pure golden color, petals broad, incurved, a solid ball.

Ramona. Bright amber, incurved, large and full.

A. Gervaise. Very delicate lemon, edged with deep rose. One of the choicest.

Mrs. Anthony Waterer. Very broad white petals tinted with deep lavender.

Royal Pheasant. Very odd.

Golconda. Like an orange tassel; semi-double. Very long, graceful petals, of canary yellow. Tall grower.

Duchess. Deep maroon inside petals; outside yellow; rich and beautiful.

Golden Pompon. Very dainty and pretty.

Nellie Bly. Twisted golden petals.

Lamanda. Clear yellow; irregular; very beautiful.

Pearl. Large flat petals; yellow center; pure white.

Mrs. Frank Thompson. Petals very broad, color, a creamy white, beautiful velvety, greenish yellow center.

Miss Mary Weightman. A magnificent and very distinct chrome yellow; in form loose and feathery, but very large and full; flowers 10 inches across.

Monadnock. The flower is full, bright yellow tubular florets. A very odd flower.

Thistle. At first a shade of lemon yellow, changing to a pure white; their thread-like petals are like a paint brush or thistle; a dainty thing.

Lord Byron. Brilliantly marked bronzy red and gold; large, double and good.

Sunset. A remarkable and very striking flower, with broad,

long, flat petals of rich orange yellow, marbled with brown, red and crimson; golden disc; flowers of immense size.

Amber Gem. Beautiful amber. Flowers grow in form of a ball, last many weeks.

PINK CHRYSANTHEMUMS.

Pyrèthrum Roseum. Resembling Pyrethrum roseum in habit and color. High, soft center, deep pinkish carmine petals; tall grower; masses of flowers on long stems; very early.

Ada Spalding. Lower half of flower a rich, deep pink, shading in upper portion to the purest pearl-white. Petals very large, broad and solid.

Mrs. Charles Dissel. In color, mostly a soft shade of lavender pink, sometimes creamy white with pink center, and occasionally all three shades.

Colossal. Probably the largest of all Chrysanthemums, form somewhat flat, with tips of petals incurved; the color is of pearl-pink, changing to bluish. A charming variety.

Lilian B. Bird. Of the very largest size, long, tubular petals of perfect form, flowers twelve inches in diameter; color an exquisite shade of "shrimp pink," flower when fully open an immense half-globe.

RED CHRYSANTHEMUMS.

Walter W. Coles. A very bright, reddish, terra-cotta, reverse pale yellow, outer petals broad, long, pointed and horizontal. A very large flower and exquisitely beautiful.

Leopard. Ground color a deep shade of carmine, irregularly splashed and spotted with pure white, flower quite large, petals partly tubular; a very distinct and novel variety; quite late.

G. F. Moseman. One of the finest of all yet known; nine inches in diameter, irregular, incurved petals, buff without and bright terra-cotta within, large, robust and free-growing.

AND THE DESERT SHALL BLOSSOM AS THE ROSE.

One of the characteristics of Southern California springtime, as developed in the last few years, is the holding of citrus fairs. The Southern California State Citrus Fair for 1892 opened its doors to the public in Los Angeles on the 2nd of March, and the lavish wealth of color there displayed was certainly sufficient to dazzle the eyes of the eastern 'tenderfeet' who thronged Hazard's Pavilion throughout the 'fair' week (as usual, interspersed with showers) with illy concealed surprise and delight.

The late Richard Henry Dana, in his now famous 'Two Years

Before the Mast,' faithfully portrayed the physical and social condition of our favored land during the last days of Spanish supremacy. But he would have needed a prophetic eye to foresee the semi-tropical luxuriance—the stately palms, the fragrant flowers and the profusion of luscious fruits, displayed on this occasion as the product of the then desert plains, over which the rattlesnake held undisputed sway. Nor could he have anticipated that in half a century the typical black eyes of the country's beauty would be outnumbered by the Anglo Saxon blue.

Men are but children of larger growth, and the hundreds of unique and tasty designs in oranges and lemons plainly demonstrated anew Shakespeare's kdowledge of human nature, which remains unchanged throughout the centuries. Orange county expended its energy in a big orange mounted on a base composed of oranges and lemons. Riverside tried to outdo the orange by a big lemon, mounted on shining banks of oranges and lemons, surrounded with pyramids and other designs in citrus fruits. Ontario built an island of oranges mid a sea of lemons, and crowned the summit with another big lemon. Pasadena, as the Queen City, built for herself a magnificent crown of oranges, jewelled richly with sparkling lemons, using oranges for the foundation of her chief work.

Ventura county modestly displayed the products of her orange and lemon orchards, and showed additional taste in decorative plants and flowers, particularly in a profusion of the Egyptian Papyrus, a most effective ornamental plant.

Santa Barbara led in beautiful palms and rare decorative plants. Pineapples, bananas, dates, persimmons, citrons, the pomelo or grape fruit, and other varieties of semi-tropical fruits, offered a decided relief to the masses of color elsewhere.

The names of Duarte and Pomona in letters of golden fruit appropriately told the story of the horticultural wealth of those localities, while in an obscure corner the little gem of the valley, Alhambra, was typified by a single beautiful rose set amid a circlet of the golden apples.

Fort San Diego commanded the key of the whole situation, however, her black mouthed cannon livid with color, threatening to bombard the audience with oranges and lemons. Two walls

of the fort (three stories high) were built of oranges, and one side was of lemons. California as it was, was graphically shown in a group of cacti at one end of the San Diego exhibit—which furthermore represented a by no means small industry of gathering these odd and beautiful plants, since the trade in Californian and Mexican cacti is centering in the city of San Diego. Fresh and pickled olives and olive oil, however, represented a greater industry—one which gives promise of supporting thousands of families in the future. The display of raisins, figs, guava jelly and orange marmalade illustrated other typical interests without overshadowing the grand collections of citrus fruits which dare the world to surpass them in quality.

Redlands, as one of the most enterprising of modern communities, showed her esteem for education, along with her abundance of oranges, by building a model of her high school in oranges, while pyramids of oranges in five varieties occupied a green field within the compass of its walls.

Words cannot adequately convey an impression of the brilliancy and splendor of the whole, all decorations having been restricted to two shades of green and the colors of the two primal citrus fruits which formed the bulk of the entire display. The ceiling was formed of ivy and cypress, ornamented with orange and lemon stars, which added a charming impression of a star-lit sky.

Could Cortez and his band of conquerors have marched in triumph into the midst of all this splendor, they would have been surrounded with greater wealth and beauty than they ever met in the halls of Montezuma, and could they have found this land as it now is, their luckless expedition up the Golfo de Cortez would not have been in vain.

Meanwhile, the era of this marvelous development of our resources is in its infancy; each year's citrus exhibit outranks the previous one; the most far sighted cannot foresee a limit to its expansion; nor can we even conceive of the possibilities of the next half century. "Better fifty years of Europe than a cycle of Cathay" was the old version—the new version has it: "Better an acre of land in California, with one lung, than a farm and two lungs in the east."

EDITORIAL.

Another botanical trip to the Colorado Desert has been made, and the notes thereon yet await elaboration. The Southern California Science Association has been enrolled among the institutions of the Pacific Coast. Another scientific expedition, to traverse the west coast of Mexico, is under way. The Columbian Fair is demanding more urgent attention. The State Citrus Fair is in progress as we write. Meanwhile, correspondence from every clime is making every possible demand upon our time and energy, and the welcome rain is extending an urgent invitation to partake of Nature's prodigal banquet of flowers.

NOTES ON ROSES.

Every owner of a garden, be it large or small, grows roses, and as a result there are nearly as many varieties of this plant, as there are minds among its cultivators. The average life of the plant is short. It should be a 'life well spent' in bloom. As a means to this end, too great care cannot be had to commence with strong, healthy, well-established plants. A good beginning is not less important in the garden than elsewhere. The varieties from which to select are numerous and bewildering. The following are some of the most approved sorts.

The Rainbow. Too much cannot be said in praise of this beautiful rose. It is lovely in bud and blossom, striped and splashed with carmine on a pink ground, its coloring is exquisite, and all who see it desire to possess a plant.

Souvenir de Wooten. Flowers very large and perfect, of a dark velvety red color and highly perfumed. Beautiful in the bud, of extraordinary size, and the most perfect form, a grand Rose.

Madame Hoste. Creamy white color, deepening to pale yellow in the center; blooms constantly and profusely, the magnificent flowers are borne on long, erect stems.

Hybrid Tea Rose, Duchess of Albany. Resembles La France but a deeper color—a grand rose.

New Tea Rose, Sappho. Buds fawn color suffused with rose,

the opening flowers shaded yellow and tawny buff, centers deep, bright yellow; large, full and globular.

Grace Darling. Strong, vigorous grower; color a porcelain rose, elegantly shaded with vinous crimson, a decided color, but never quite obscuring the ground of beautiful yellow upon which it rests. The colors seem to stand out separate and distinct.

POLYANTHA ROSES.

Little White Pet. Flowers in large clusters. Very pretty.

Mad. Cecele Bruner. The prettiest and daintiest rose imaginable; pink shaded salmon.

Perle D'Or. Resembling the above, salmon buds.

CLIMBING ROSES.

Marechal Neil. Deep sulphur yellow, large and beautifully formed buds, sweet fragrance, vigorous grower. Should be planted in warm, sunny locations.

Climbing Niphetos. Pure white, long buds, similar to its parent Niphetos, excepting its robust climbing habit. Plant in sheltered location.

Climbing Perle des Jardins. Rich straw color, large and beautiful buds; of robust climbing habit, in other respects similar to its parent Perle des Jardins.

Reine Marie Henriette. Dark crimson, very large, pointed buds, strong grower.

Mad. Alfred Carriere. Rapid grower; always in bloom; buds and blossoms pearly white, with long stems. No collection is complete without this rose.

Cloth of Gold. Golden yellow.

White Lamarque. Pure white.

Rene. Marie Henriette. Sometimes called red-flowering "Glorie de Dijon." Color, rich crimson, elegantly shaded; flowers large, full and fine form, very double, very sweet. An extra fine sort.

James Sprunt. A grand rose; deep cherry-red, medium size, full, very double and sweet. A strong grower and profuse bloomer.

W. A. Richardson. A most unusual shade of orange yellow; much admired.

Euphrosne. Large, pearly white; a valuable winter bloomer.

Reve D'Or. Beautiful in flower and foliage; a rampant grower; saffron yellow. The best and most satisfactory of all climbing roses.

Waltham Queen. A strong continuous bloomer; the flowers are large, full and sweet. Color a rich scarlety-crimson, very beautiful, and a profuse bloomer. Nothing can compare with

this for beauty of bud and foliage, and it literally lavishes in the greatest profusion its beautiful, rich, red flowers of magnificent size.

Estelle Pradelle. One of the most satisfactory and beautiful white roses ever offered—a rampant grower, flowers exquisite in bud and blossom

Cherokee Rose. Pure snowy white, large single; pea green foliage; a rampant grower; Æsthetic.

HYBRID PERPETUAL ROSES.

Magna Charta. One of the most satisfactory roses of this class for California—vigorous grower—with almost thornless stems, and magnificent large pink flowers, often measuring five inches in diameter.

Giant of Battles. Brilliant crimson, large, very double and sweet. Esteemed one of the finest.

Her Majesty. Of immense size, perfect form and exquisite coloring, being a delicate, but bright pink, shaded with rosy salmon. The largest Rose ever produced. Its immense size, perfect symetry and exquisite coloring combine to make it the Rose of Roses.

Queen of Queens. Pink, with blush edges, large, full, and of perfect form. A true perpetual flowering Rose, every shoot being terminated with a flower. A splendid garden Rose.

Mad. Catherine Soupert. Hybrid perpetual, exquisite pink, large fine form, good bloomer.

Marshall P. Wilder. Hybrid perpetual, bright cherry red; fine.

Capt. Christy. Dwarf habit, large, beautiful soft rose color, exceedingly beautiful.

Alfred de Rougement. Dark rich red.

Black Prince. Like dark red velvet. Choice and rare.

Louis Van Houte. One of the black velvet roses, always desirable.

Jacqueminot. Rich deep red, always popular.

ROSA RUGOSA (WHITE).

A Japanese species, first sent to this country in 1855, is one of the handsomest hardy shrubs in cultivation. It forms a sturdy bush 4 to 5 feet high, covered with large, dark green, pinnate, glossy foliage, and producing terminal clusters of ten to twenty flowers, three inches in diameter, and very fragrant. It continues to flower the whole summer, making a very attractive object. If it never produced a flower it would still be entitled to a prominent place on the lawn for the beauty of its foliage, which scarcely resembles that of the Rose, but is very heavy, rich and shining, remaining on until late in autumn. Its large handsome scarlet fruit is most showy during the autumn months.

TEAS.

Ye Primrose Dame. An exquisite new Tea Rose, as beautiful as its quaintly pretty name. It is a very double variety, with petals beautifully curved; very free flowering. The outer petals are a soft but distinct canary color, the center a rich, rosy salmon or apricot: the shading from the outside to the center is very beautiful.

Mad. de Watteville. Salmon blush, each petal bordered light rose like a tulip, lovely color and shape. This rose delights every one.

Souv. de Victor Hugo. A splendid ever-blooming rose, introduced from France; large tulip-shaped flowers, delightfully scented and a very free bloomer; color lovely citron red, with beautiful amber and fawn shading.

Madame Scipion Cochet. Vigorous in growth, with fine, healthy foliage. Flowers are large and can be cut with long stems; petals are thick in texture; color pale rose, shaded with yellow, making a combination of coloring.

Mme. Philemon Cochet. Has extremely beautiful heavy foliage, and plenty of it, being a fine rapid grower and a profuse bloomer, the flower always coming on a long stem: the bloom is of medium size, semi-double, and a delicate pink, with shell-shaped petals.

Souvenir de Therese Levet. Pure, clear, velvety crimson. Each petal shows on the center of margin a decided point, giving the flower a clear-cut appearance. Its odor is powerful and delicious.

Princess Sagan. This new rose is a most dazzling shade of crimson, shaded scarlet.

Countess de Frigneuse. Delicate canary yellow; long pointed buds; exquisite.

Mad. F. Kruger. Magnificent large buds; of a rich shade of tawny yellow.

The Bride. Beautiful in bud, and in full bloom, pure white; outside petals sometimes tinted delicate rose.

Mad. Etienne. A profuse blooming sort, bearing large, full and fragrant buds of a rosy pink color. The edge of the petals shades off to light rose; center occasionally shows a rich blush.

Meteor. A rich, dark velvety crimson Hybrid Tea; a free-bloomer and vigorous grower.

Clothilde Soupert. Very double and sweet. The color is pearl-white, deepening to carmine at the center. One of the loveliest Roses of late introduction, and as far as its blooming qualities are concerned, it cannot be equalled. Of robust habit and easy culture. It it destined to become one of the most popular Roses for either in or out-door culture.

CANNAS.

Excellent plants for garden decoration. Where sub-tropical effects are desired they are indispensable. The varieties offered are choice and fine, and bear flowers of similar size and form as Gladioli.

Adolph Weick. Rich pea-green foliage, very dwarf and compact habit, flowers large, of a rich crimson scarlet, shaded with orange. A free-blooming, attractive sort.

Ehemanni. The most distinct of all Cannas on account of its large oval soft green leaves and carmine-red flowers, which are produced on long flower stems; each of the smaller branches bears about twelve flowers.

Nouttoni. Quite distinct from Ehemanni in coloring, being a rich shade of crimson scarlet. Flowers very large, growing erect instead of drooping. Plant is six feet in height.

Emile Leclaire. Flowers large, bright golden yellow, mottled and spotted crimson and scarlet. Pea-green foliage.

Felix Crousse. Glaucous green foliage; large coppery red flowers.

Henry Martin. Orange scarlet; extra large flowers.

Hippolite Flandrin. Extra large bright salmon flowers; foliage light green.

Nabob. Magnificent foliage; shaded and striped purplish red; large crimson scarlet flowers.

Oriental. Smaller foliage; more dwarf plant; shaded like the above; flowers large, bright red.

Felicie. Yellow blotched rose red.

New Seedling Canna Ventura. This grand new Canna has the largest flower of any Canna yet offered. Of a graceful habit, a most persistent bloomer and beautiful color, it makes a showy and brilliant bedding plant. The flowers are immense. Color, a blending of scarlet and carmine, exquisitely shaded. The petals are 1¼ to 1½ inches across, and three inches long; they curve gracefully outward. The foliage handsome, broad, dark green, with a brownish line on the edge of leaves. Height, 3½ to 4 feet.

New Canna Camulus. A distinct variety, handsome foliage, height 4 to 5 feet. The spikes of bloom are very long, and stand out horizontally from the stem like a candelabra; the flowers also stand out in the same manner. The color is a glowing scarlet, flowers good size. The peculiar habit of growth of the variety, its very long and brilliant spikes of flowers make it most desirable.

Star of 91. This beautiful dwarf Canna, with its immense

spikes of flowers is worthy of all the praise it has received. It has immense flowers of a glowing scarlet, with occasionally yellow edges; it is very dwarf.

New Canna Anacapa. Very tall, 5 to 7 feet; foliage and stems a beautiful pea green; spikes of orange-colored flowers spotted scarlet, petals very long and beautifuliy curved at the edges. A magnificent and strong variety, a great improvement on Emile Le Clair.

THE EAGLE'S SONG.

On the mountain crest
I have built my nest,
To greet the sun in the morning;
And my eaglets there,
Shall ne'er learn despair,
Or the need of humble fawning.

Now upward I soar,
And want nothing more,
Than my beak and talons supply;
My eaglets shall learn
Their meat to discern,
And follow in liberty's sky.

Now away, away,
In the light of day,
In the glow of the morning breeze,
Afar from the earth
And its noisy mirth,
My own skyward nature to please.

Oh, if there's a power
That bringeth this hour,
Beyond all the gifts that I know;
The joy that I feel,
His praise must reveal,
Accepted as homage I owe.

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